
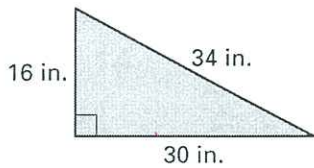


Name: \_\_\_\_\_ TP: \_\_\_\_\_

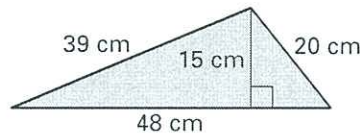
Failure to show work on all problems or use complete sentences will result in a LaSalle. Round to hundredths!

$A_{\Delta} = \frac{1}{2} B \cdot H$  ... Height is VERTICAL... straight up & down   
 $P_{\Delta} = S_1 + S_2 + S_3$

1) Find the area and perimeter of the triangle below:

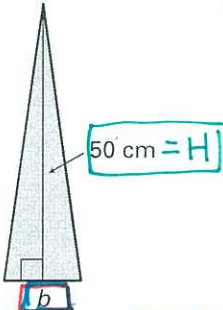


2) Find the area and perimeter of the triangle below:

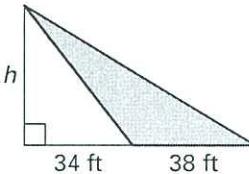


3)  
 Area =  $345 \text{ cm}^2$   
 Find the base b.

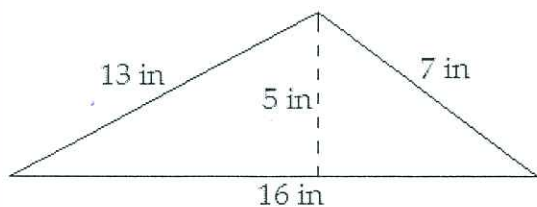
$A = \frac{1}{2} BH$  \*Substitute in values  
 $345 = \frac{1}{2} (b)(50)$   
 Multiply!  
 $345 = \frac{b}{2}$   
 \*Solve for B\*



4)  
 Area =  $826.5 \text{ ft}^2$   
 Find the height h.

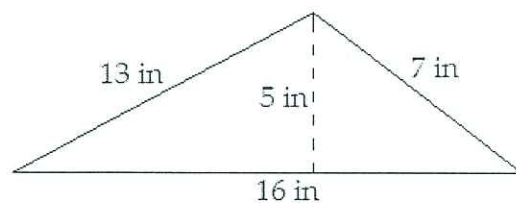


5) Find the area of the shape below.



A.  $36 \text{ in}^2$  B.  $56 \text{ in}^2$  C.  $40 \text{ in}^2$  D.  $80 \text{ in}^2$

6) Find the perimeter of the shape below.  
 \*Only add the outside measures!



A. 41 in B. 36 in C. 40 in D. 35 in

7) Michelle is painting her bedroom walls neon pink. How many square feet will she paint if her bedroom is 20 feet by 12 feet? DRAW it! ② Square ft/painting... is this area (inside) or perimeter (outside)

11) What is the equation of the line that passes through (5,6) and is parallel to  $y=5x-3$ ?

$x_1, y_1$

$y = mx + b$

$m=5$   
 \*Perpendicular = opposite reciprocal slope  
 \*parallel = same slope  
 $y = mx + b$  \*Plug in & solve for b! \*

12) What is the equation of the line that passes through (3,4) and is perpendicular to  $3x-y=8$ ?

13) What values satisfy the inequality?

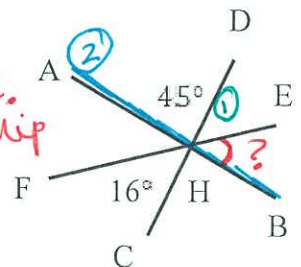
$-3 + |x-4| = 6$

- A. {-5,13}
- B. {5,13}
- C. {-5}
- D. {13}
- E. No Solution

① Isolate absolute value  
 ② Set up \_\_\_\_\_ inequalities  
 (one + & one -)  
 ③ SOLVE.

4) Segments AB, CD, and EF intersect at H. What is the measure of angle EHB?

① Fill in the angle vertical (across)  $\angle FHC$ .  
 ② Look @ the blue line. What relationship is this?  
 ③ SOLVE!



- A.  $45^\circ$
- B.  $29^\circ$
- C.  $119^\circ$
- D.  $61^\circ$
- E.  $164^\circ$

5) If  $AY = 50$ ,  $BY = 7.5$ , and X is the midpoint of AB, how long is AX?



- A. 22.25
  - B. 21.25
  - C. 20
  - D. 42.5
  - E. 26
- ① Remove  $BY$  from  $AY$  (+, -, or  $\div$ )  
 ② To find midpoint, (+, -,  $\div$ ) by \_\_\_\_\_.

6) If your start position is at 0 on the number line and you move 10 places left then 4 places right and then 6 places left, what is your final position?



- A. 2
  - B. 10
  - C. -10
  - D. -11
  - E. -12
- ① Use the # line  
 OR  
 ② Put + or - in front of each # & add  
 • Right  $\rightarrow +$   
 • Left  $\rightarrow -$

\* FILL IN ALL BLANKS & UNABLE! \*

HW#24: Application Review Problems

Form A

Geometry

Due Date: Friday, Oct. 11<sup>th</sup>, 2013

Name: \_\_\_\_\_ TP: \_\_\_\_\_

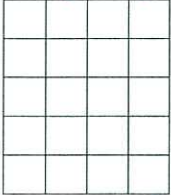
Failure to show work on all problems or use complete sentences will result in a LaSalle.

1) Each tile below measures 30 in by 30 in.

a. What is the perimeter and area of this rectangle?

b. Make a new rectangle with the same perimeter but different area and give the length and width using the same size tiles.

30 30 30 30



Goal 1:  
Goal 2:

• Length =  
• Width =  
\* Remember, EACH square tile measures 30 in. by 30 in.

a)  $P = 2L + 2W$   
b)  $A = L \cdot W$

b) Draw new shapes on graph paper that have the same perimeter as part a), but different areas.

a)  $P =$   
b)  $A =$

\* Draw different shapes rectangles on a sheet of graph paper. Remember, each square/tile = 30 in.

Provide proof!

STAY READY.



2) Three times the width of a certain rectangle exceeds twice its length by three inches, and four times its length is twelve more than its perimeter. Find the dimensions of the rectangle.

**G** (Dimensions are the length & width of the rectangle)

**R**

- (Write out 1<sup>st</sup> dimension)
- (Write out relationship w/ perimeter)
- Perimeter of rectangle:

**A** I will translate words into operations & \_\_\_\_\_  
Then, I will substitute into the \_\_\_\_\_ formula.

① "Three times the width exceeds twice its length by three in."  
 $\underline{\quad} \cdot \underline{W} \quad \neq \quad \underline{\quad} \cdot \underline{\quad} + \underline{\quad}$

② "Four times its length is twelve more than its perimeter"  
 $\underline{\quad} \cdot \underline{\quad} = \underline{P} + \underline{\quad}$

**S**

- ① solve equation 1 for "W"
- ② substitute  $2L + 2W$  in for "P" of equation 2
- ③ substitute step 1 in for "W" of equation 2.
- ④ Solve for "L".
- ⑤ substitute "L" in for ~~for~~ to either equation to find "W."

**P**rove!

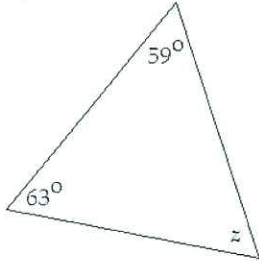
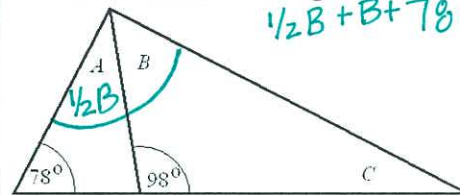
STAY READY.

Name: \_\_\_\_\_ TP: \_\_\_\_\_

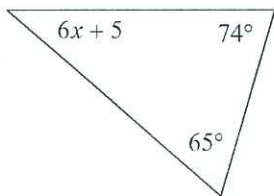
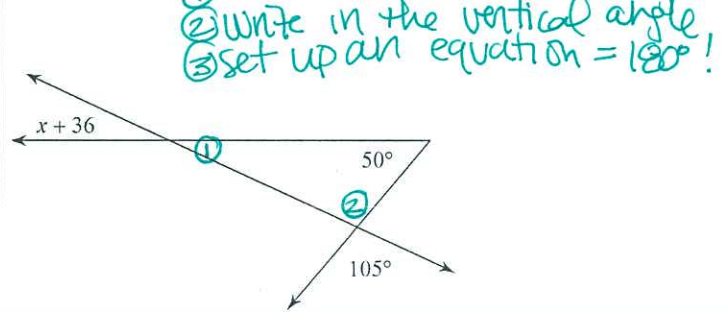
**Form A**
**Mon, Oct 14th**

Failure to show work on all problems or use complete sentences will result in a LaSalle. Round to hundredths!

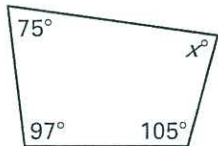
- Triangles sum to  $180^\circ$
- Quadrilaterals sum to  $360^\circ$

1) What is the value of  $z$  in the picture below?

2) **Challenge:** Angle A has half the measure of angle B. Find the measure of angle C.


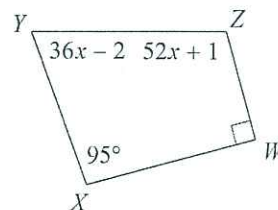
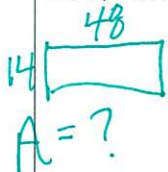
$$\frac{1}{2}B + B + 78 + C = \underline{\hspace{2cm}}^\circ$$

3) Solve for  $x$ :

4) Solve for  $x$ :

5) Explain how you would find the value for  $x$  in the figure below: USE your words

(what to quadrilaterals sum to?)

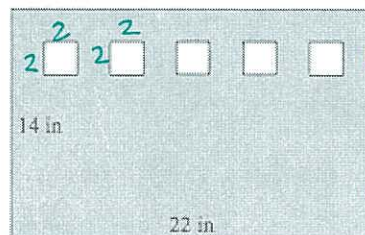


6) Find the given measure:

 $m\angle Z$ 

7) A small highway billboard has dimensions 14 ft tall and 48 ft wide. For an extra fee, advertisers can purchase a large billboard whose dimensions are twice those of the small billboard. In square feet, what is the area of the large billboard?


- ① TWICE the dimensions
- ② Multiply original  $L \times w$  by  $\underline{\hspace{2cm}}$ .

③  $A = ?$ 

8) A rectangular piece of wood (shown below) has five, 2 inch by 2 inch squares cut out of it. What is the new area of the rectangular piece of wood in square inches?


- ① Find the area of the shaded rectangle
- ② SUBTRACT the area of each square that is cut out.
- ③ Area remaining is the answer.

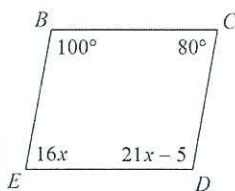
**STAY READY.**



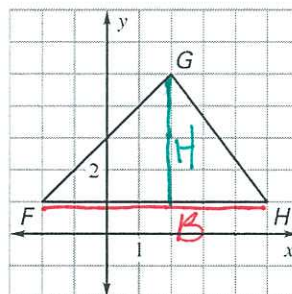
9) The area of a triangle is 578  $\text{cm}^2$ . Its base is four times the length of its height. Find the height and base of the triangle.

$$A_{\Delta} = \frac{1}{2}BH \quad H=? \\ A = 578 \quad B=? \\ B = 4 \cdot H \quad \text{*SUBSTITUTE!*} \\ 578 = \frac{1}{2}(4H) \cdot H \quad (\text{FINISH})$$

10) Find the given angle:  
 $m\angle E$



11) Find the area of the figure below



$$H = (\text{count units}) \\ = \\ B = (\text{count units}) \\ = \\ A_{\Delta} = \\ A_{\Delta} = \boxed{\phantom{00}}$$

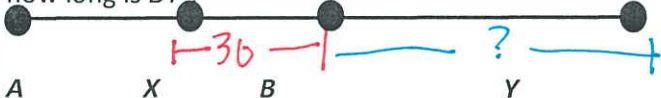
12) What is the equation of the line that passes through (8,4) and is perpendicular to  $0.5 = 16y + 4x$ ?

$$\begin{array}{l} \text{① Solve for } y: 0.5 = 16y + 4x \\ \text{② Do opp.} \\ \text{recip. of slope} \quad -4x + 0.5 = 16y \\ \text{③ Plug into } y = mx + b \\ y = \end{array}$$

13) Solve for x:  
 $z = xy + 16 - z$

- ① Do inverse of  $-z$
- ② Do inverse of  $+16$
- ③ Do inverse of  $\cdot y$
- ④ What's your final equation?

14) If  $AY = 100$ ,  $BX = 30$ , and X is the midpoint of AB, how long is BY?



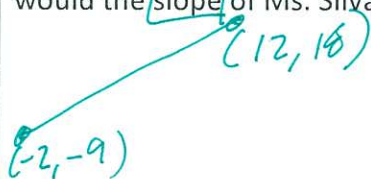
- ① If X is midpoint,  $\overline{AX} = 30$ , label what AX would be.
- ② Get rid of  $\overline{AB}$  from  $\overline{AY}$ . What is left is  $\overline{BY}$ !

15) On a number line, point A is located at -99, B is located at -4, and C is located at 62. How much longer is BC than AB? FIND DISTANCE!

$$|B - C| \quad A \quad B \quad C \quad |A - B|$$

SUBTRACT @ the end

16) Ms. Silva enjoys skateboarding. Her ramp requires that the starting point would have the coordinates of (-2, -9) and the highest point on her ramp would have coordinates of (12, 18). What would the slope of Ms. Silva's skateboard ramp be?



17) On a number line, the coordinate of point A is 25 and the coordinate of point B is -5. What is the coordinate of the midpoint of line segment AB?

Find the midpoint by (+, -,  $\cdot$ ,  $\div$ ) by \_\_\_\_.

Answer: